DOCUMENT RESUME

ED 409 591 CS 509 544

AUTHOR Lichty, Patrick
TITLE Information, Institutions, Society and the New Media.
PUB DATE Mar 97
NOTE 7p.; Paper presented at the Annual Joint Meetings of the Popular Culture Association/American Culture Association (San Antonio, TX, March 26-29, 1997).
PUB TYPE Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Computer Mediated Communication; *Computer Uses in Education; Electronic Text; Higher Education; *Internet; Online Searching; Online Systems; Technological Advancement; *Technological Literacy
IDENTIFIERS Interactive Communication; *New Media; *Technology Integration

ABSTRACT

The year 1997 is seeing rapid-fire technological change, the likes of which few ages in history have seen. The popular concern in the academy is the utilization and ubiquity of the Internet in classroom and administrative functions. With ever increasing regularity, universities are relying on online resources, such as Internet syllabi, course discussion groups, and online registration services. One misconception about the digital media is that it is able to translate printed matter directly to the screen. The web-like construction of the Net, however, collapses the vertical assembly of traditional information structures (paragraphs, indices) creating an interlinked system of symbols: lexia, images, other media. It can be surmised that the multimedia text, or "macrotext," requires no less than a significant revision of how people interact, design, and distribute information. There are many reasons for the narrowing or "shallowing" of the interactive experience with the text, including issues of ergonomics, the structure of interactive media itself, editing, and possession of technology. The most effective methodology to speak to the media culture is to use equivalent media to convey the salient points of a sociological discursive strategy. This can be accomplished by expansion on the written text--by the inclusion of sounds, images, and motion. The framing of the theoretical discourse within the expanded contextual space is essential to the communication of the concepts of postmodern thought that are intrinsic to a social theory of a multimedia culture. (Contains 12 references.) (CR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 409 591

Information, Institutions, Society and the New Media

Patrick Lichty

PCA/ACA Meetings 1997

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

P. Lichty

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Information, institutions, Society and the New Media

To paraphrase the alien ambassador Kosh from the American science fiction series Babylon 5, "Understanding is a three-edged sword. There's your version, my version, and the truth." In the case of the new information technologies such as multimedia, virtual reality and Internet-based tools, the issues relating to individuals and institutions represent a far more multivalent space of discussion than merely that of addressing the binary dialectic between digital determinists, Neo-Luddites, and those caught in the crossfire. In this age of rapid technological change, all sectors of global culture are being impacted on societal, corporate, governmental, and academic levels.

In the next few pages I intend to muse on some of the effects that the new media are causing, but will limit this discussion to topics dealing with the social, epistemological, and technical aspects of 'being digital' (Negroponte, 1995) as they apply to the academy. This will be done to narrow our area of focus, and to keep the length of this presentation down to slightly less than the coming of the millenium. The structure of this presentation will move through these issues in order to tease out their numerous points of interaction, utilizing what Gilles Deleuze termed a 'rhizomatic' (1993) structure of discourse, in order to avoid the obfuscations of a more linear narrative. It is also a structure that closely replicates that of the web itself, and is germane to the representational practices discussed in this presentation.

There can be no doubt that in 1997 we are in the midst of rapid-fire technological change the likes of which few ages in history have seen. Within the twenty-five years I have been involved in the digital society, we have moved from Pong to Pentiums, from BASIC to JAVA, and from information once contained in numerous volumes that can now be stored on a single CD-ROM. Constant change such as this make it problematic at best for addressing critical concerns relating to technology because of near-immediate obsolescence. Therefore, I will keep this discourse at a more general level, and will attempt to describe a few of the traces that the digital culture has left on the postmodern terrain.

As of this writing, the popular concern in the academy is the utilization and ubiquity of the Internet in classroom and administrative functions. With ever-increasing regularity, universities are increasing their reliance on online resources, such as internet syllabi, course discussion groups, and online registration services (U.MN). In fact, there are projects such as the Performance In History collaboration that proposes the creation of entire academic texts solely located within the discursive field of cyberspace, thereby eliminating the need for easily outdated "textbooks." Combined with the technical determinism of the digital corporate industrial complex and their insistence of the inevitability of widespread computer technology leads us to question the politics, necessity, and methodologies behind the media images reifying these agendas.

To locate ourselves at a referential starting point from which we can operate, let us focus our attention on a central icon of intellectual life, the book. For our purposes, it will not be the meticulously crafted leather bound edition, the "book as art," commonly used as the prevailing media stereotype, but merely the generic hardbound texts typically used in many universities or the mass-market paperbacks which permeate our everyday lives. By examining the issues pertaining to the translation of the text into the digital realm, we can address numerous issues inextricably bound to the applications of media technologies at the institutional level.

One popular (mis)conception of the digital media is the ability to translate printed matter directly to the screen. The horizontal format of the screen and the interlinked hierarchical structure of multimedia are indications of the ontological shifts between the world of atoms (the book) and that of bits (multimedia) [Negroponte,1995]. From my own experience as a designer, it is obvious that the interplay of the gaze with the screen is entirely different from a qualitative aspect than that of the gaze with the page. The one-to-one relationship between the printed page and the eye is decentralized; multimedia images bombard the eye from all directions, rather than relying on the invocative power of the written word. The web-like construction of the net collapses the vertical assembly of traditional information structures (paragraphs, indices, catalogues, etc.), creating a robustly interlinked system of symbols: lexia, images, other media. Following from these effects, we can surmise that the multimedia text, or 'macrotext', as we will come to know this body of information,

requires no less than a significant revision of how we interact, design, and distribute information.

The result of these shifts from the physical to the virtual shifts is a 'shallowing' of discursive spaces in which large amounts of decentralized information are available to the viewer, but much of which possesses any appreciable depth of exposition. This effect has been described by Deleuze/Guattari (1993) as 'rhizomatic' in which the viewer moves in rapid, shallow movements across the vastly interconnected data sea of lexia (a term that I will use to describe all small chunks of online media). Jameson (1984) seems to be agreement on this collapse of postmodern discursive spaces in speaking of the 'depthlessness' or what I call a 'narrowing of bandwidth' in contemporary society which pervades social interaction as well as media and institutional constructs.

Bandwidth describes the capacity for a given channel of communication's ability to deliver information to the observer over a given period of time. In Internet terms, a person using a slower phone connection will have a significantly longer wait to receive the same amount of data (Text, graphics, etc.) at their terminal than a person possessing a much faster connection, such as ISDN. Similar analogies refer to volumes of water as a metaphor for data travelling at a uniform speed through different size pipes (Wires, data channels).

An analogy that I prefer to use is that of "Social Bandwidth" (Lichty, 1996), or the progressive act of interpersonal detachment that imposes itself upon the individual. The experience possessing the greatest social bandwidth is, of course, one-to-one, in-person interaction. In this situation, the people involved are able to not only exchange verbal and/or textual information, but also visual cues such as facial expression and body language. In describing the 'narrowing' of this social bandwidth, I introduce a degree of technological separation, the first being the telephone. In speaking on the telephone, we still have a rich site for social interaction. we can still discern a great deal of meaning through vocal inflection as well as verbal communication.

As additional degrees of separation are introduced through various forms of technological agency, we are led to event-sites of minimal social bandwidth such as E-Mail and Internet newsgroups. There is still interpersonal exchange at this level, but gone are additional personal cues such as facial expression and vocal inflection that create a much richer and direct channel for communication. With the stripping away of the aforementioned levels of social exchange, we are left with progressively less information, and it is easier to misconstrue one's intentions. The result leads to online arguments (flame wars), as well as a host of other miscommunications.

For the case of the text, the narrowing of discursive bandwidth can take many forms as we move from traditional channels of communication to the Internet and New Media. There are many reasons for this narrowing, or 'shallowing' of the interactive experience with the text, including issues of ergonomics, the structure of interactive media itself, editing, and possession of technology. Ergonomically, the book, although more linear, offers a more robust experience in its tactility and spatial nature. There is often greater satisfaction in manipulating tangible objects, as this gives us a spatial as well as visual referent from which the participant can operate. In more general terms, it is easier to say that a passage is "towards the middle of a book" than to locate its position within a Web site. Hierarchically, the user is, as mentioned before, presented with a large array of information, presented in a more 'horizontal', non-linear, structure, as opposed to the more linear, "vertical" organization of the book. The user is presented with many different topics, but many which are covered in little depth.

A practical test of this 'shallowness' can be obtained from browsing the World Wide Web. In travelling across the mediascape of the Web, notice the time that is invested interacting with the online media as well as the depth of content contained on its sites. I would suggest that the qualitative aspect of interacting with digital media is far more rapid, fragmented, and decentralized than the relatively linear and hierarchical interplay one experiences with, for example, textbooks. This is due to the structural narratives imposed by Web publications.

The breakdown of informational hierarchy that becomes evident through the metaphor of the book

BEST COPY AVAILABLE

transforms its structure, which often builds upon itself through successive chapters in order to create an epistemological trajectory, into a series of relatively equal lexia which can be assembled more or less in an arbitrary manner. Examining the reorganization of the text as it enters the realm of the digital also reveals phenomena that can be applied in the larger scheme of society. The decentralization of structure via the digitization of the text hints at the fragmentation of postmodern culture, examples of such splintering being the proliferation of cable TV channels, the lack of peer review the production of Internet texts, and governmental privatization. This follows Jameson's assertion of the partitioning and 'flattening' of society, creating a 'society of surface'.

This interaction with the surface, in our case the computer screen, alludes once more to our metaphor of shifts and slippages between the book and digital media. The disparity between the screen and the page changes reading styles, and affects the reader's own ability to comprehend and complete tasks, as the ergonomics of the screen require entirely new methodologies of 'reading'. From my own experiences and through conversation with my academic colleagues, there appears to be far less need for a movement of the eyes when interacting with the screen than with interacting with the printed page. Described symptoms resulting from rapid shifts between traditional and digital media include eyestrain, headaches, and even nausea. This creates what I might consider as a Skinneresque operant conditioning, programming the viewer into singular media preferences, which could mesh quite well with the agendas of the media digerati.

Technical determinists, such as Microsoft Chairman Bill Gates and the WIRED Magazine editorial staff suggest the necessity and inevitability of digital technology in everyday life. This message has obviously been heard in sectors of our society, as initiatives for more computers in the classroom are passed, and programs such as the Performance in History Project endeavor to create entirely digital academic texts, available only through the Internet. Investments in those companies which manufacture digital hardware and software, such as Microsoft and Intel, have skyrocketed, drastically overvaluing the stock and skewing the market balance. Television ads herald the new egalitarian society of cyberspace in which there are now supposedly no borders of race, gender, or ability (notice I did not mention class). "Utopia?" it asks, to which "No, the Internet." (Television ad, 1996) is the response.

This steady stream of halcyon optimism from technological producers just seems to be arriving alongside an even greater impetus for 'wiring' all sectors of our society. As a quick sidebar, MSNBC's cyber-TV program, The Site, reported the inauguration of the first 'pay per hit' website. In this case, the user pays to merely access the web site itself, paying two or three cents per hit (MSNBC, 1997), thus actualizing the commodification of data. Furthermore, in his book, The Road Ahead, Gates reinforces this theme, repeatedly invoking narratives of 'on-demand' services, including everything from video games, movies, to information retrieval. Following from this, one thing is clear; corporate society would like nothing better than to make the Information Superhighway a toll road, and this could translate to the academy as well.

Be that as it may, I'd like to return for a moment to the words of Bill Gates in *The Road Ahead*. In it, he says, "It pays to be wary of hype.." (Gates, 96). The industrialized world has not followed this advice at all. As told in the March 24th issue of the Austin Times-Statesman, technological giants such as Intel and Microsoft report holdings far out of proportion to their yearly profitability, dwarfing industrial moguls such as Ford and GM. In describing the coming global (inter)dependence on distributed networks such as the Internet, and even technology itself, Gates reiterates his ambivalence in saying

> "That much dependence can be dangerous. During the New York City blackouts in 1965 and 1967, millions of people were in trouble--at least for a few hours because of their dependence on electricity." (Gates, 1996 p.301)

The effects of a service interruption on digital culture has already been seen through the Fall 1996 nineteen-hour failure of America Online. This breakdown cut people off from their electronic communications, most likely interrupting business for many, and isolating countless others who relied on AOL for conducting social and personal tasks. During this relatively short time, much of the media hype was stripped away from cyberspace, and two things were evident. Six million people were dependent on a section of

cyberspace...and that section had failed.

Does this suggest that society should eliminate its investment in technology, and return entirely to preexisting forms of information transfer and storage methods? Technology and its occasional predilection to failure should not preclude its use. Popular cyberculture tends to conceive of the information age as an exercise in technological determinism, when in fact I believe that this age is an experiment in cultural pluralism. What is evident in this pluralism is the fragmentation of social constructs in the postmodern, and the commingling of these forms, cultural, institutional, digital, analog, and so on. This represents the fracturing of the binary dialectic in digital culture and reifies the interdisciplinary nature of the information age.

New ages require new methodological paradigms. There are very few historical parallels to the systemic technological changes that are taking place, and these shifts are a challenge to the intellectual community which calls for reasoned experimentation in finding the potentials of new media in the global society. Due to the novelty of these techniques, such as streaming audio and video, multimedia, VRML worlds, and the World Wide Web, the full informational and pedagogical opportunities, just to name a few, of these technologies are not entirely known. Those experimenting in the practical application of the new media are in largely uncharted waters, and the exploration of the epistemological and ontological fields of cyberspace is before us. An example of a project aimed towards this inquiry are my collaborations with Jonathon Epstein of Kent State University concerning the use of the new media as a pedagogical tool for social theory. For the past seven years, Dr. Epstein and I have created texts, graphic works, multimedia presentations, rock videos, and Web installations in an effort to describe the shifting terrain of postmodern media society.

Our message is this: We have become a multimedia society. If you don't believe it, merely make a list of the number of newspapers, magazines, cable channels, radio stations, phone services, and digital media that call for your attention every day. We are not only a society of the word, but now also of the image, one of clickable icons, rock video and talk shows. In fact, children are more likely to identify with Bush or Mario the Plumber than Tom Sawyer (Mark Twain's and not Geddy Lee's, mind you). They are the first entirely multimedia society, a Baudrillardian culture dominated by primacy of the image and Virilio-esque technological acceleration.

In order to speak to the media culture, the most effective methodology that we have found is to use equivalent media to convey the salient points of our sociological discursive strategy. What we seek to accomplish is an expansion of the text into what Jameson terms as "an aesthetic of cognitive mapping" (Jameson, 1984:89), that Turkle (1995) interprets as "a new way of spatial thinking that would permit us to at least register the complexities of our (digital) world". In our case this is accomplished by expansion on the written text by the inclusion of sounds, images, and motion.

Concerns have been voiced by the intellectual community of a Baudrillardian implosion of the word into the virtual image. The written text is still, in our opinion, a key referent in our media metaphors for social theory. However, following from Baudrillard in "The Transparency of Evil" (1993) the transparency, or interdisciplinary cross-pollination of all areas of the postmodern media culture juxtapose written text with annotation comprised of rock video, Web sites, and Oliver Stone conspiracy theories. Applying this concept has consisted of many forms that expand on the written word as discursive element, of which an example is the MACHINE rock video trilogy that addresses the epistemological terrain of Baudrillard's media society.

What results in using this form of discursive practice is what was termed in Nunberg's (1996)anthology, The Future of the Book as a 'Macrotext', which can be thought of as a collection of lexia, including text, video, sound, etc. This 'Macrotext' contributes, what I have heard Epstein (1995) call a more visceral, immediate aspect to the overall work, thus putting it within a larger context. In our opinion, the framing of the theoretical discourse within the expanded contextual space is essential to the communication of the concepts of postmodern thought that are intrinsic a social theory of a multimedia culture. And, in informal university trials, projects such as MACHINE appear to offer a greater cognitive richness to the experience of social theory as a multivalent, viable, and living process.

BEST COPY AVAILABLE

Another important concern in our work in visual social theory has always been one of constraining the representational practices in our associated media as to not limit the imagination. Within our work, the number of concrete audio-visual referents are balanced so that a discursive trajectory may be communicated without being so literal to discourage interpretation by the observer. Doing so has involved drawing on sources from the arts, sciences, and humanities to attain these ends, and remains a constantly shifting process to this day.

The new media and emergent digital technologies present us with challenges such that our answers will shape the culture of the 21st century. The process of shifting the global society into the information age, will be long and fraught with pitfalls. The Internet currently is far from perfect, and raises serious concerns in privacy, reliability, authorship, and socioeconomic areas to name a few, that hold the potential to redefine many of the cultural, social, and economic assumptions that we currently hold. However, a binary reductionism between technical determinism and neo-Luddism will not allow any significant progress in the new media. It is clear that the way is most uncertain, and only through well reasoned experimentation and the synthesis of new ideas with old principle old principles we will find solutions to the questions that institutions such as the academy shall face at the fin de millenium.

Sources

Babylon 5 (1996) "All Anone in the Night(?)" PTEN/Warner Bros. Television
Baudrillard, Jean (1993) The Transparency of Evil, Verso, New York
Deleuze, Gilles (1993) "Rhizome Versus Trees" The Deleuze Reader, Boundas, Columbia Press, 1993, New York
Epstein, Jonathon (1995) Interview at the "Cyberspace and Civil Society" conference, Wake Forest University, Winston-Salem, NC (See also SITO Art Collaborative's "96 Hours in Cyberspace" video, (1995) SITO Online Art Collective, Omaha, NE)
Gates, William H. III (1996) "The Road Ahead" Penguin Group, New York
Jameson, Frederic (1984) "Postmodernism, or the Cultural Logic of Late Capitalism". *New Left Review 146 (July-August 1984)*
Lichty, Patrick (1996) "The Narrowing of Social Bandwidth" *Future Tense*, Minnesota Public Radio, Dec. 14, 1996
MSNBC (1997) The Site, News item, Week of Feb 22nd.
Negroponte, Nicholas (1995) "Being Digital" MIT Press, Cambridge, MA
Nunberg, Geoffrey (1996) "The Future of the Book" California Press, Berkeley/Los Angeles
Television ad, (1996) Sponsor unknown, Seen while viewing CNN around Sept. 1996
Turkle, Sherry (1995) Life on the Screen, Simon & Schuster, New York